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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,803	06/13/2005	Yoshitaka Sakaue	2005_0966A	8801

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EXAMINER

VERDERAME, ANNA L

ART UNIT	PAPER NUMBER
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1795

MAIL DATE	DELIVERY MODE
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03/26/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/538,803	Applicant(s) SAKAUE ET AL.	
	Examiner ANNA L. VERDERAME	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☒ Claim(s) 1, 4 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/12/2006 and 09/12/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Layer 8 is not defined in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance. For examination purposes layer 8 is interpreted to be substrate 9 recited at for example (0009).

Claim Objections

2. Claim 1 is objected to because of the following informalities: In the third line of claim 1 "a record layer" should be changed to " a first record layer".

Appropriate correction is required.

3. Claim 4 is objected to because of the following informalities: In line 3 of claim 4 "the record layer" should be changed to "the first record layer".

Appropriate correction is required.

4. Claim 8 is objected to because of the following informalities: In line 4 of claim 8 " as a transmittance adjustment layer" should be changed to "and acts to adjust transmittance". Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim recites "wherein a second record layer is disposed on the opposite side to the (first) record layer ." These reads on a structure having a first record layer a substrate and a second record layer stacked in this order. Alternatively, this reads on a structure where a substrate a first record layer and a second record layer are stacked in this order. Based on the figure 1 and the applicant's description of this figure at (0031-0033) it is suggested that this claim be amended to recite " wherein the

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second record layer is placed on the side of the first record layer nearest the substrate(1)". Alternatively the claim could be amended to recite "wherein the second record layer is placed on the side of the first record layer opposite the substrate (9)"

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-8 and 10-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Uno et al. US 6,449,239.

Uno et al. teaches an optical recording medium as shown in figure 8 wherein a polycarbonate resin substrate 100 is coated with ZnS-SiO₂ protective layers 102,106,202, and 206, Ge-Cr-N interface layers 103,105,203,and 205, and Ag-Pd-Cu alloy for reflective layers 107 and 207, TiO₂ for thermal diffusion layer 108 and Ge₄Sb₂Te₇ for recording layers 104 and 204(17/28-43). The TiO₂ heat dissipation layer had a thickness of 40 nm(17/41). The separating layer 109 may be formed of a material which enables optical absorbance with respect to the laser beam used for recording and reproduction to be as low as possible. As such a material SiO₂ is acceptable(11/54). Transmittance adjustment function of the TiO₂ thermal diffusion layer is disclosed at (9/60-10/52). A 30 nm thermal diffusion layer is disclosed at (17/3).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Uno et al. US 6,449,239 in view of Ishibashi et al. JP-01-286136.

Uno et al. does not teach the limitations recited in instant claim 9.

Ishibashi et al. teaches a method by which a substrate made of polycarbonate is evacuated in a vacuum chamber to remove water and oxygen from the substrate. Then an SiO₂ protective layer is coated on the substrate. The result of such a process is improved adhesion of the base protective layer and to prevent cracks from generating(abstract).

It would have been obvious to modify the method of forming an optical recording medium like that taught in Uno et al. at (17/28-43) by removing water and oxygen from the polycarbonate substrate 100 by evacuation in a vacuum chamber before forming the first protective layer of ZnS-SiO₂ in order to improve the adhesion of the protective layer and to prevent cracks from generating as taught in the abstract of Ishibashi et al.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-JP-02183441- teaches an optical disk made by laminating a disk-shaped substrate with a reflecting film 3, a Ti or Mg oxide film 5, and a silicon oxide film 6. Thus corrosion and defective adhesion are eliminated.

-JP-08-050739- See figure 3 and disclosure at (0019) and (0027-0029).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANNA L. VERDERAME whose telephone number is (571)272-6420. The examiner can normally be reached on M-F 8A-4:30P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on (571)272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. L. V./
Examiner, Art Unit 1795

**/Mark F. Huff/
Supervisory Patent Examiner, Art Unit 1795**